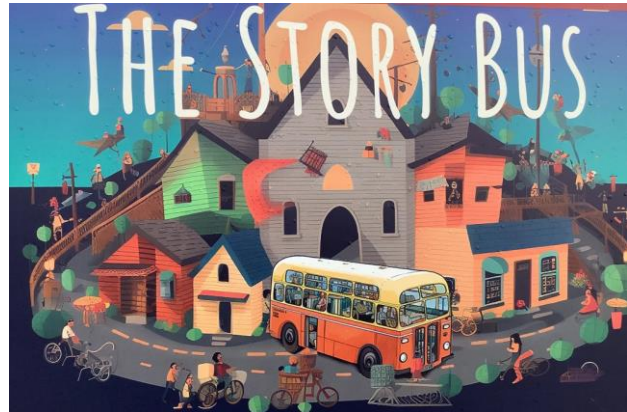


**Theatre Green Book Case Study**  
***A Stranger Comes to Town/Story Bus***  
**An Tobar and Mull Theatre**

For two of our winter events in 2023/24 we decided to attempt to meet the Theatre Green Book Advanced Level. This case study reports on what we did and how successful we were at meeting that.

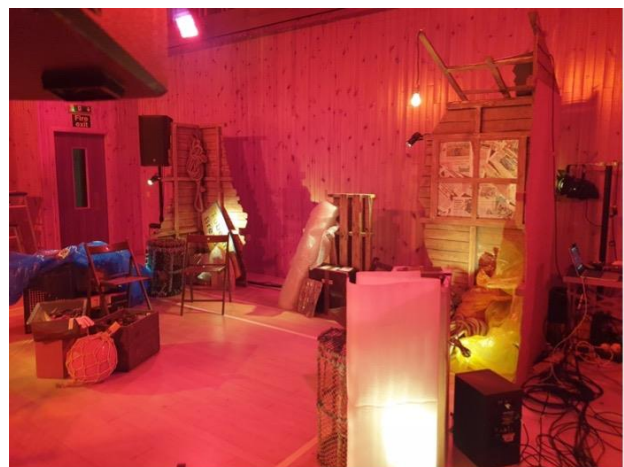
I used the Materials Inventory section of the Theatre Green Book to design a spreadsheet in which I could record all the information of what had been used as part of the show. This was time consuming: since this is a small-scale production I was working as Production Manager, Sound and Lighting Designer for both shows simultaneously, so some of the information was not noted at the time, but reconstituted from recollection later.



The quantity of information produced some very valuable results, however.

The design brief for *A Stranger Comes to Town* included the use of waste materials, and it was very important to the Lead Artist that the piece included elements of rubbish that had been brought to the island and abandoned. For that reason it felt like a good fit for our first attempt to follow the Theatre Green Book advice. *Story Bus*, similarly, was conceived as a means of touring our community engagement programme around the island in winter, and was designed to be self-contained and enclosed inside our van. Although both projects would require use of the van, which runs on diesel fuel, we felt that we could perhaps achieve Advanced Level on all other aspects, and that the data we collected would provide useful information on where we were not meeting our sustainability targets.

I worked with our in-house set builder and the Lead Artist to design an exploded shed construction filled with items sourced from waste disposal. Unfortunately, we discovered that the local tip was not keen on us taking anything away, citing health and safety concerns. We therefore turned to the local community, and were able to collect quantities of plastic sheeting, pallets, chicken wire, corrugated iron and cardboard boxes, the latter also proving useful as storage on tour. Of 82 items of props and furniture, 98.8% had a previous life, and most were intercepted on the way to landfill or already in our props store. The set itself, however, required timber to build. Although the frame could be made from timber



reclaimed from previous sets, we had no suitable plywood in stock. That required a purchase of 6 sheets of plywood, which brought our materials to 56% from reused or recycled sources.

The show had no actors, so there was no need for costume, however the technical aspects of the show included multiple speakers, projection and lights. Most of the equipment used (with the exception of some XLR adaptors) was already in stock, however the way that the materials inventory is calculated meant that those small items gave us 0% from reused or recycled sources.

The show toured Mull from October 2023 – March 2024, with 30 shows over the course of the run. Most of the information about kW used had to be reconstituted from recollection after tech week, as I did not have time to record this on a daily basis. Going forward, I think a useful tip will be to design a simple form that allows me to record the times at which the lighting and sound equipment is powered on while the tech is happening. Calculating usage became easier as the show went on when I was able to determine how long each fixture was powered up through the course of a show day. This information, together with some calculations sourced from Julie's Bicycle, enabled me to estimate an overall quantity of carbon emissions (CO2 equivalent) for all the lighting, sound and AV and transport elements of the production. In total we calculated that the production generated 162.9kg of CO2e emissions, of which 81% was due to the transport used (our old diesel van).

*Story Bus* was designed with our in-house set builder, and he was able to use timber from previous sets to build the whole of the Story Bus set, which included tables, stools and shelves fitted into the rear of the van. As with *Stranger*, the show did not use actors, so we did not need to source costumes, and the only props were lent to us by our Head of Creative Learning. All the lighting inside the van was battery-powered LED lights, which came from stock, and a battery-powered Zoom sound recorder and mp3 player provided audio support. The show ran from November 2023 – May 2024, and has been extended for two additional events in August 2024.



The design of this show meant that we were able to meet all our targets for Advanced Level, with the exception of transport. Our total CO2e emissions for this production were 157.1kg, of which 100% was from transport. The fact of recording the information for this has nonetheless been useful, as it has been passed to our fundraiser to be used as evidence to fund the purchase of an electric van. The information has also been used in our Creative Scotland reporting.

Developing the Production Sustainability spreadsheets was extremely useful, and I intend to continue their use for our next in-house productions. I recognise that we were starting from a strong base, given that we have a long history of reusing timber to build sets, and we have an extensive props and costume store. Folding in the carbon emission data gave us a useful way of identifying the areas where significant savings could be made. Both shows had a low-budget approach which meant that we were saving on the costs of actors; it will be interesting to see how much extra carbon is generated when we have to consider their involvement as well.



**Louise Gregory**

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